MAXWELL DEVELOPMENT TAR SAND PROJECT

Mine site is located on the NE¼NE¼ of Section 17 T12S R25ESLB&M on State ML 41160. Location of mining area and processing area are shown on accompanying USGS topographic map.

Mine site is in the bottom of a drainage wash beginning 25 feet up the drainage from the vertical ledge outcrop and extending 300 feet in length. On each side of the drainage the mine area will extend 50 feet making a tarsand area to be mined of 100 feet by 300 feet.

Before excavation begins an area 25 feet around the perimeter and the mine area will be leared of pinion-juniper trees, piled and burned. This will leave an area 150 feet by 350 feet cleared.

Excavation will begin by pushing 1-2 feet of top soil from mine area up and out of the mine area into the 25 feet perimeter which will become the top-soil storage pile. This rick of top-soil will also serve as a dyke to prevent surface run-off water from entering mine area. On the up-stream or south end a 6 foot dyke across the drainage will contain any flood or spring run-off water. Drainage area extends only a few hundred feet in any direction so run-off will be minimal. See map 1, 2 and map 4 for illustrations.

After top soil has been removed, overburden will be pushed north over tar sand outcrop ledge. The main drainage channel

will be filled with overburden standing at the angle of repose over the north slope. The overburden will be removed down to the tar sand vein forming a 100 foot by 300 foot mine area.

Mining will begin along the east side of mine by placing a layer of hot sand over the exposed tar sand to heat a layer to 200° F. Spent sand will be removed and dumped in a tailings storage pile west of the mine and top soil storage. This area is covered with sage and top soil will remain in place. See map 1 for detail. Tar sand feed stock will be hauled to plant site and dumped on tarsand pad. A front end loader will dump feedstock into processing unit. Hot sand tailings will pour from unit and be mixed with cold tailings to make 400°F mining sand.

As mining progresses and a strip of tar sand on the east side of mine is removed to the base of the vein tailing will be backfilled instead of hauled to the storage pile.

When tar sand is mined out of 100 feet by 300 feet area a shear face (high wall) will be exposed on the west side of the mine.

This will be the site for underground mining with tunnels going toward the west some 1000 feet. Tailing from the first tunnel will be stored. Tailings from the second tunnel will be depostied in the first tunnel etc.

When mining is completed the tailings will be palced back where tar sand and overburden was originally (see map 3 & 4) and covered with top soil. If tailings of sufficient quantity

to fill this area are not available overburden and top soil from west bank of mine area will be sloped into mine at a maximum gradeof 2;1. A minimum of 1 foot of topsoil-overburden will be placed over tailings. Drainage will be diverted west of over-burden fill to a side draw to drain down undisturbed terrain north and below overburden fill.

A mixture of 2 parts crested wheat grass and one part rabbit brush seed will be broadcast over disturbed area at the rate of 30 pounds per acre.

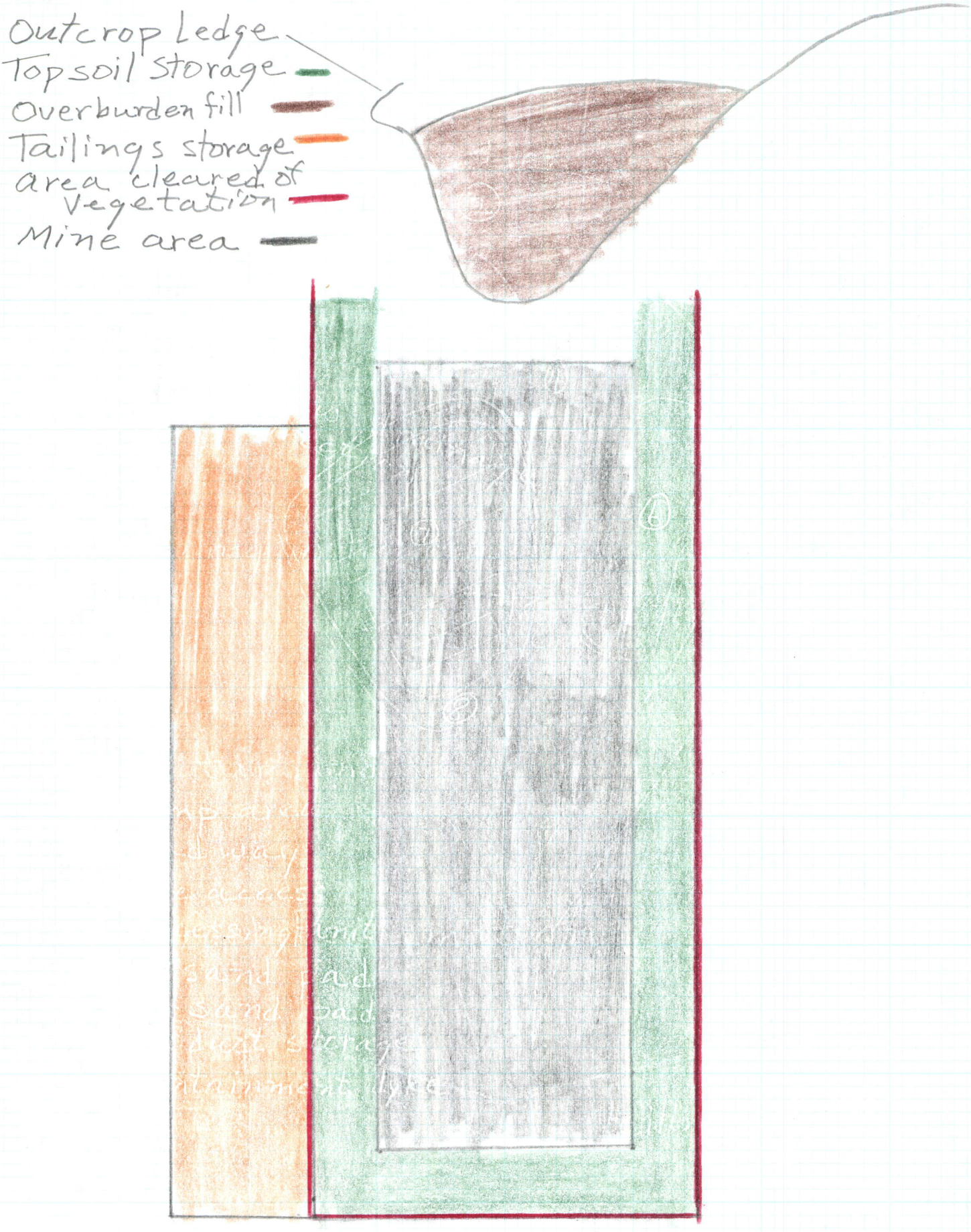
Asphalt pavement pads and roads along with any petroleum spills will be processed through the unit to remove petroleum and leave clean tailings.

Reclamation cost estimate

At apoint where tailings storage is maximum about 4000 cubic yards would need to be moved for reclamation. Maximum overburden and top soil required for reclamation would be approximately 4000 cubic yards. At the cost estimate of 25 cents per cubic yard earth moving could cost up to $2,000. The salvage value of storage tanks, processing, plant and other equipment is greater than the cost of transporting them to a market. Reclamation of plant site, access roads and reseeding is estimated at $500. Total estimated costs at time period when reclamation work would be the greatest is $2500.00

Map # I

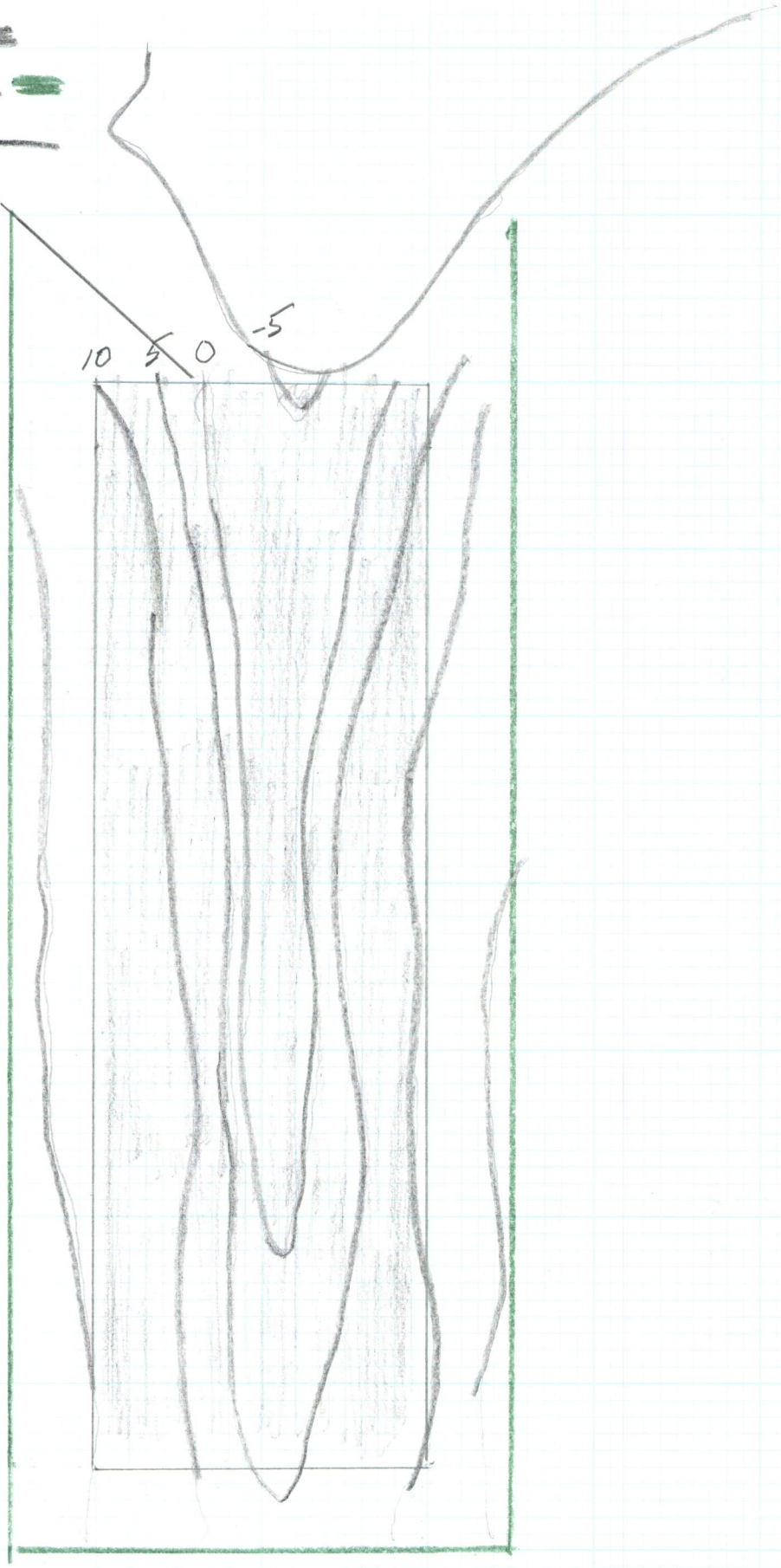
1" = 50'


Outcrop Ledge
Topsoil Storage
Overburden fill
Tailings storage
area cleared of vegetation
Mine area

Map #2
contour Map

1" = 50'

mine area
cleared area
contour lines
top of outcrop

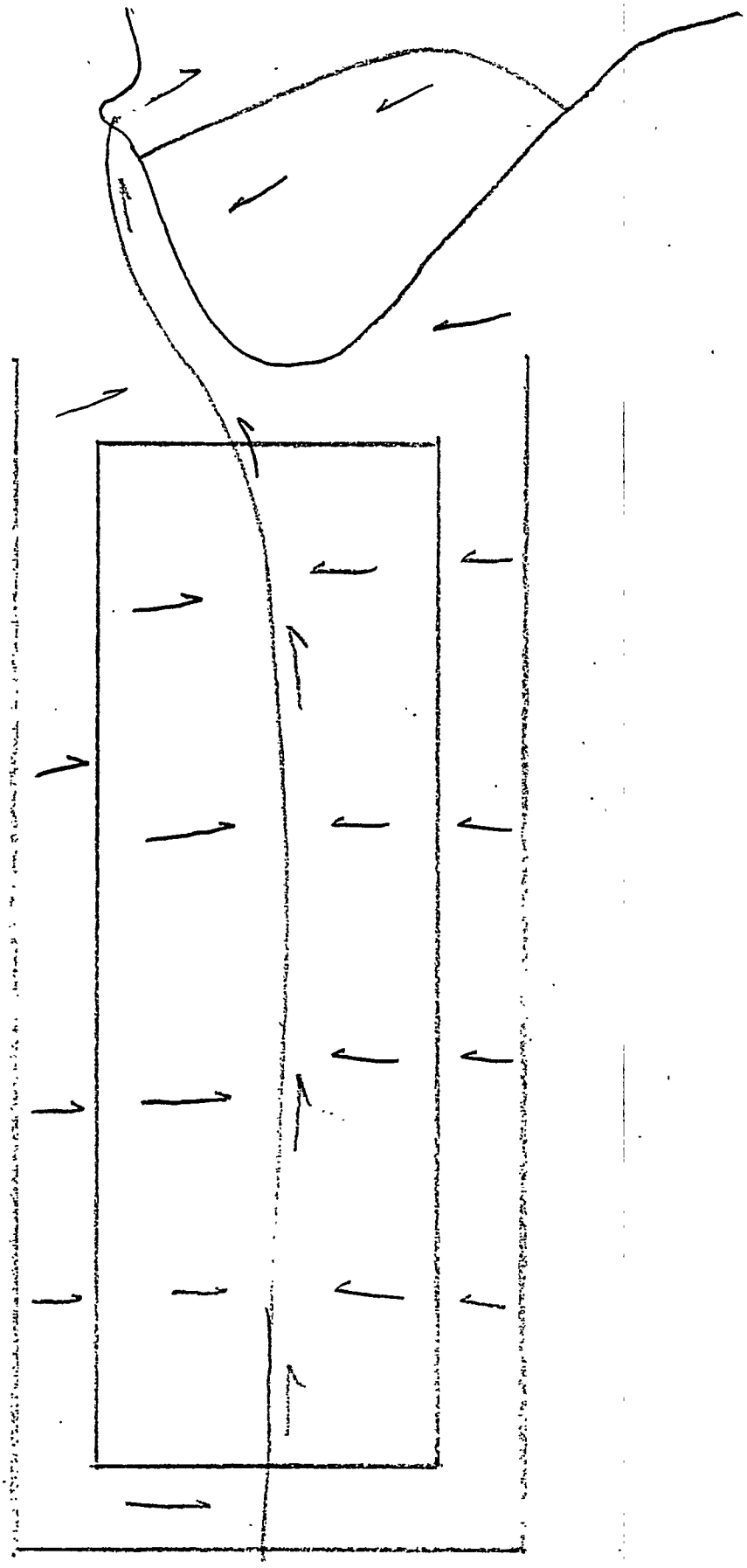


Map *3

Illistration of Drainage after Reclamation

drainage channel ——

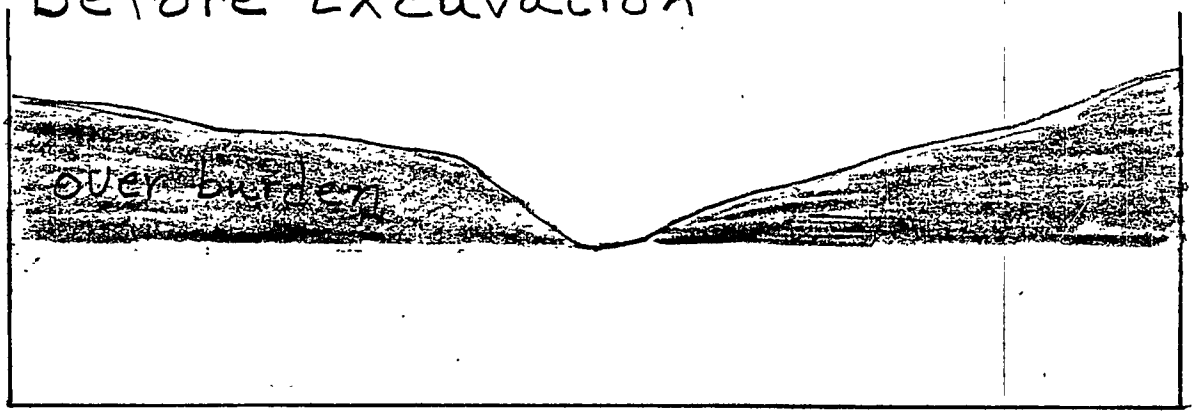
drainage direction →



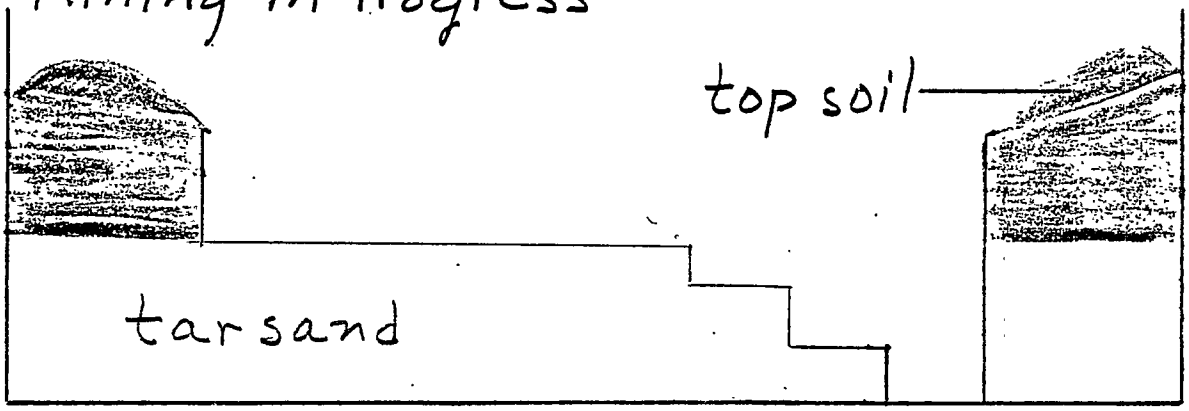
Map #4 1" = 25'

Typical Cross-Section

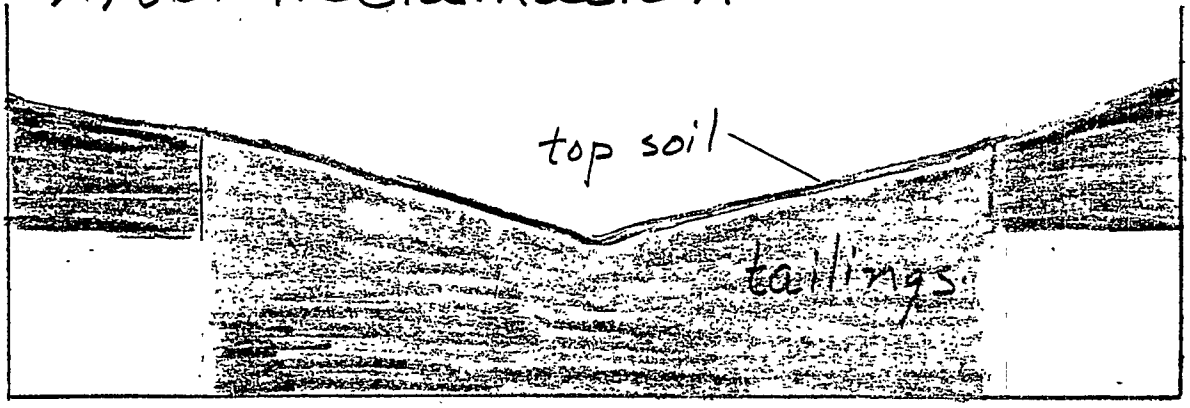
Before Excavation



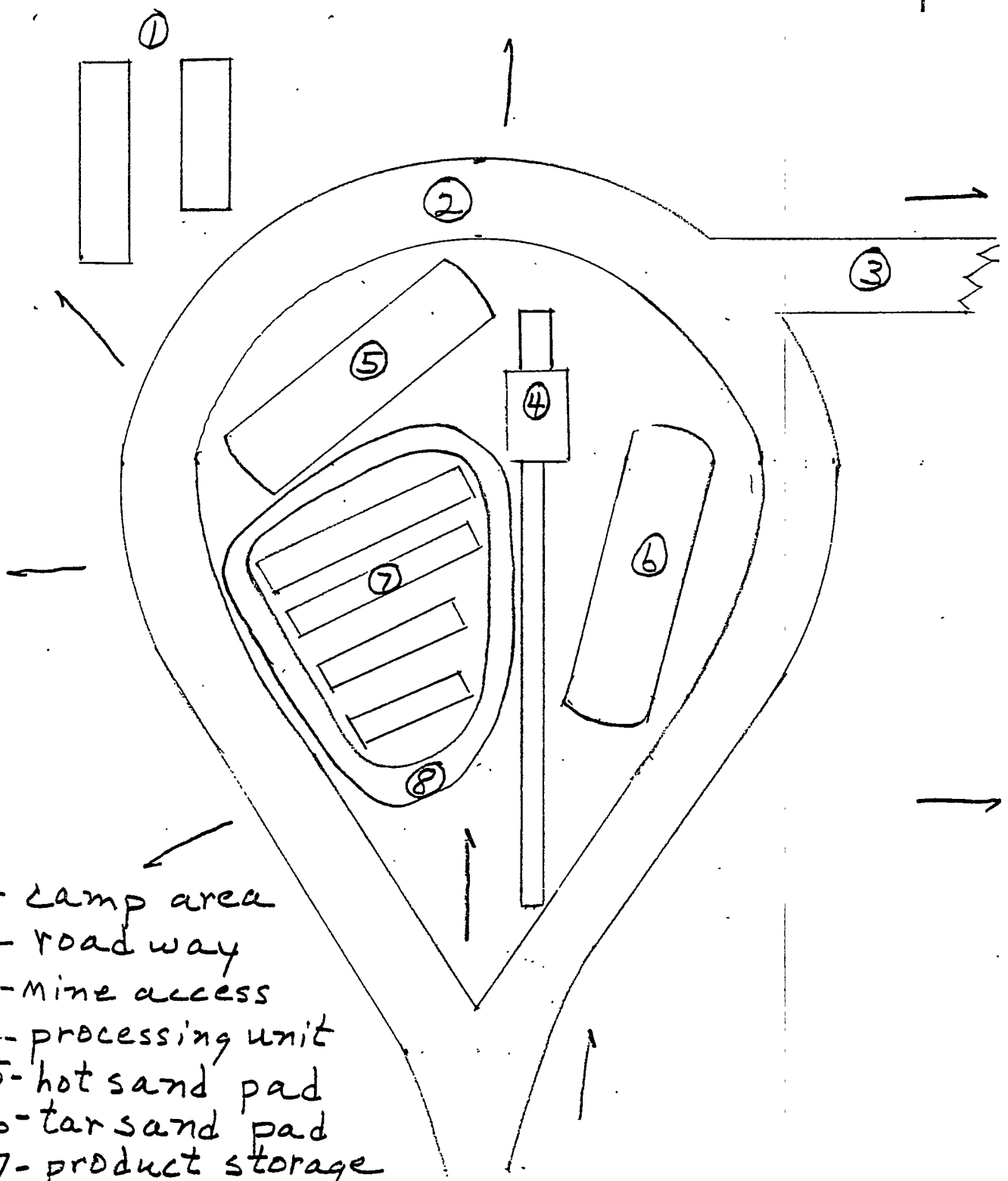
Mining in Progress



After Reclamation



Map #5 Plant Site 1" = 25'



1- camp area
2- roadway
3- mine access
4- processing unit
5- hot sand pad
6- tar sand pad
7- product storage
8- containment dyke
→ show drainage direction